

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087158 A2

not Sk

(51) International Patent Classification?: **C07K 14/70**,
C12Q 1/68, G01N 33/68

(21) International Application Number: PCT/EP03/03713

(22) International Filing Date: 10 April 2003 (10.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/372,899 16 April 2002 (16.04.2002) US
60/375,139 22 April 2002 (22.04.2002) US

(71) Applicant (for all designated States except US): **BAYER AKTIENGESELLSCHAFT** [DE/DE]; 51368 Leverkusen (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SHIROO**, Masahiro [JP/GB]; 20 Lady Jermy Way, Teversham, Cambridgeshire CB1 5BE (GB). **YAMAMOTO**, Noriyuki [JP/JP]; 6-6-1-3-404, Jingu, Nara-shi, Nara 631-0804 (JP). **HAYASHI**, Fumihiko [JP/JP]; 5-1-3-17-402, Kabutodai, Kizu-cho, Soraku-gun, Kyoto 619-0224 (JP). **FLOECKNER**, Johannes [AT/JP]; 8-9-601, Higashikozu-cho, Tennoji-ku, Osaka-shi, Osaka 543-0021 (JP). **REINEMER**, Peter [DE/DE]; Am Eckbusch 35/48, 42113 Wuppertal (DE). **ENCINAS**, Jeffrey [US/JP]; 464-1-1401, Toroyamacho, Nishikikoji-sagaru, Nishinotoindori, Nakagyo-ku, Kyoto-shi, Kyoto 604-8225 (JP). **WATANABE**, Shinichi [JP/JP]; 6-3-1-504, Jingu, Nara-shi, Nara 631-0804 (JP). **TAJIMI**, Masaomi [JP/JP]; 1-8-17, Sakuragaoka, Seika-cho, Soraku-gun, Kyoto 619-0232 (JP). **KOKUBO**, Toshio [JP/JP]; 3-15-18B, Jingu, Nara-shi, Nara 631-0804 (JP).

(74) Common Representative: **BAYER AKTIENGESELLSCHAFT**; 51368 Leverkusen (DE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: REGULATION OF HUMAN TRANSIENT RECEPTOR POTENTIAL CHANNEL

(57) Abstract: Reagents which regulate human transient receptor potential channel and reagents which bind to human transient receptor potential channel gene products can play a role in preventing, ameliorating, or correcting dysfunctions or diseases including, but not limited to, urinary incontinence, overactive bladder, benign prostatic hyperplasia, lower urinary tract syndromes, and CNS disorders.

RC/K 27

WO 03/087158 A2